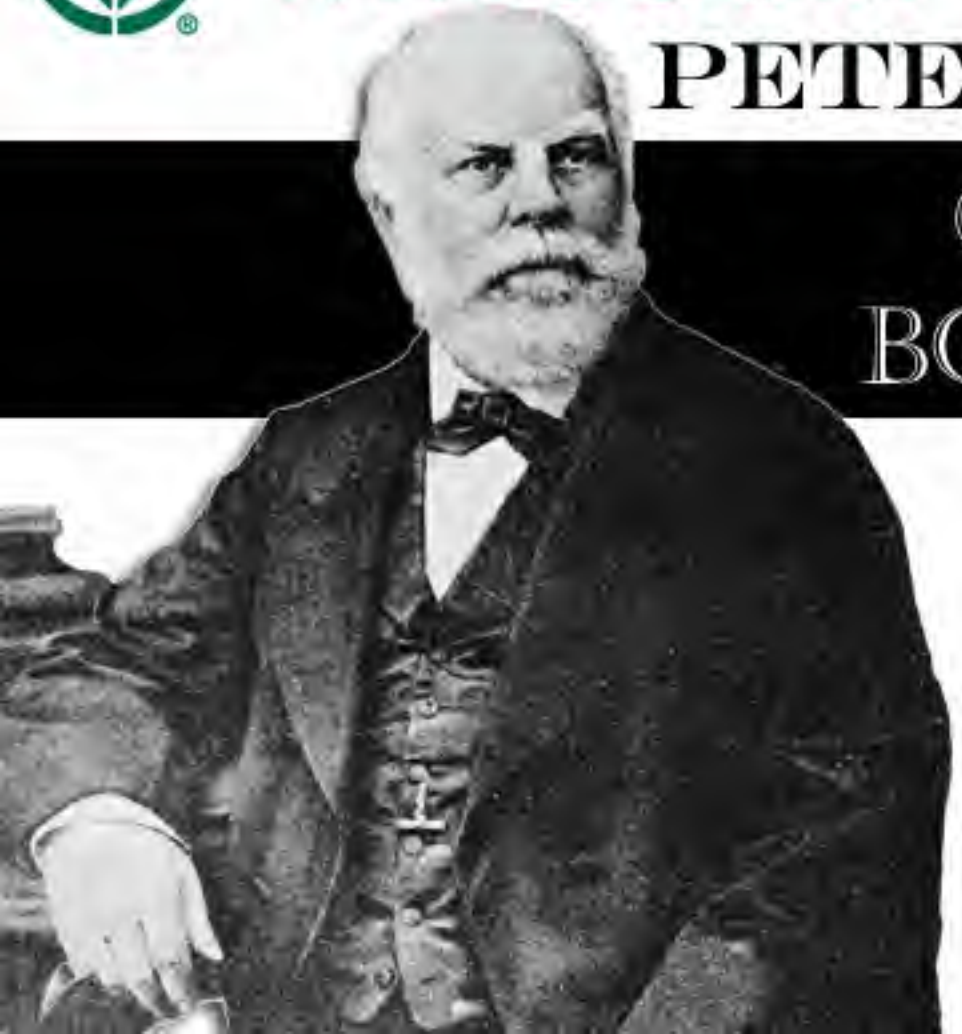
# Missouri Botanical Garden
## Peter H. Raven Library

# George Engelmann Botanical Notebooks



*Pagination Note:*
*Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.*

ering.

*Dimensions.*—Length, 0.20 of an inch; width, 0.18.

The *Elæacrinus Kirkwoodensis* is nearly allied to *E.* (*Pentremites*) *melo*, from which it is distinguished by its much smaller size and less deeply excavated base. It also occupies a higher geological position.

Occurs in the St. Louis Limestone (Carboniferous) on the Pacific railroad near Kirkwood, St. Louis county, Missouri.



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members of the party. We were [illegible] by forced night marches with nearly worn out animals, seeking to gain a spring of water in a distant range of mountains. This desert was then entirely unexplored. I have but little doubt that more interesting materials are to be found at the same point.

The mountains of the former Territory of Utah promise a rich yield to the mineralogist. We know already of gold and silver ores in the east, west and south part of that district; of copper and lead ores in the south, and I have discovered the latter also in the centre of it; of specular iron ores and native sulphur in the Rocky Mountains and near Little Salt Lake; of rock salt in the mountains south-east of Utah Lake; of native alum near Salt Lake; of various other salts in the deserts; and of silicates, composing the granites, porphyries, diorites, trachytes, and lavas, nearly over the whole area.

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0 1 2 3 4 5 6 7 8 9 10 cm
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*Iamesia Parryi*

| | Hb Philad. | Gray | Englem. |
|---|---|---|---|
| Colorado | Parry 360 | Parry 360 | Parry 360 |
| Colorado | Hall 561 | Hall 561 | Hall 561 |
| Cascade Mts. | | Lyall 1860 | (Lyell) |
| California | | | Hillebrand |

# ALEX. LEITCH

## APOTHECARY & PHARMACEUTIST,

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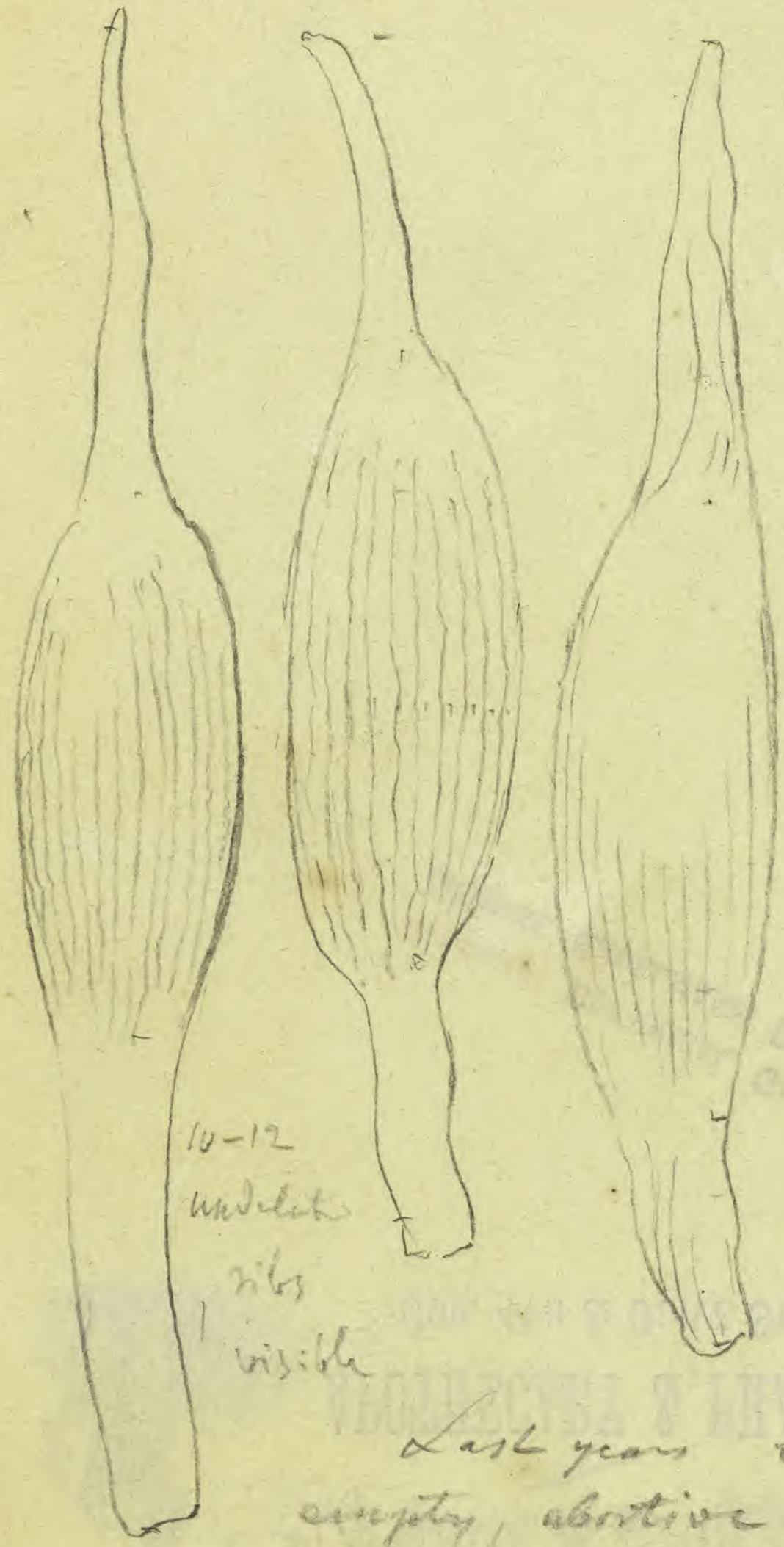
Jan. 29 1860

Quercus Douglasii

Hall 561

= Hb Gray



10–12 undulate ribs visible

last years fruits, empty, abortive

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2. Parryi Aug 2 1867

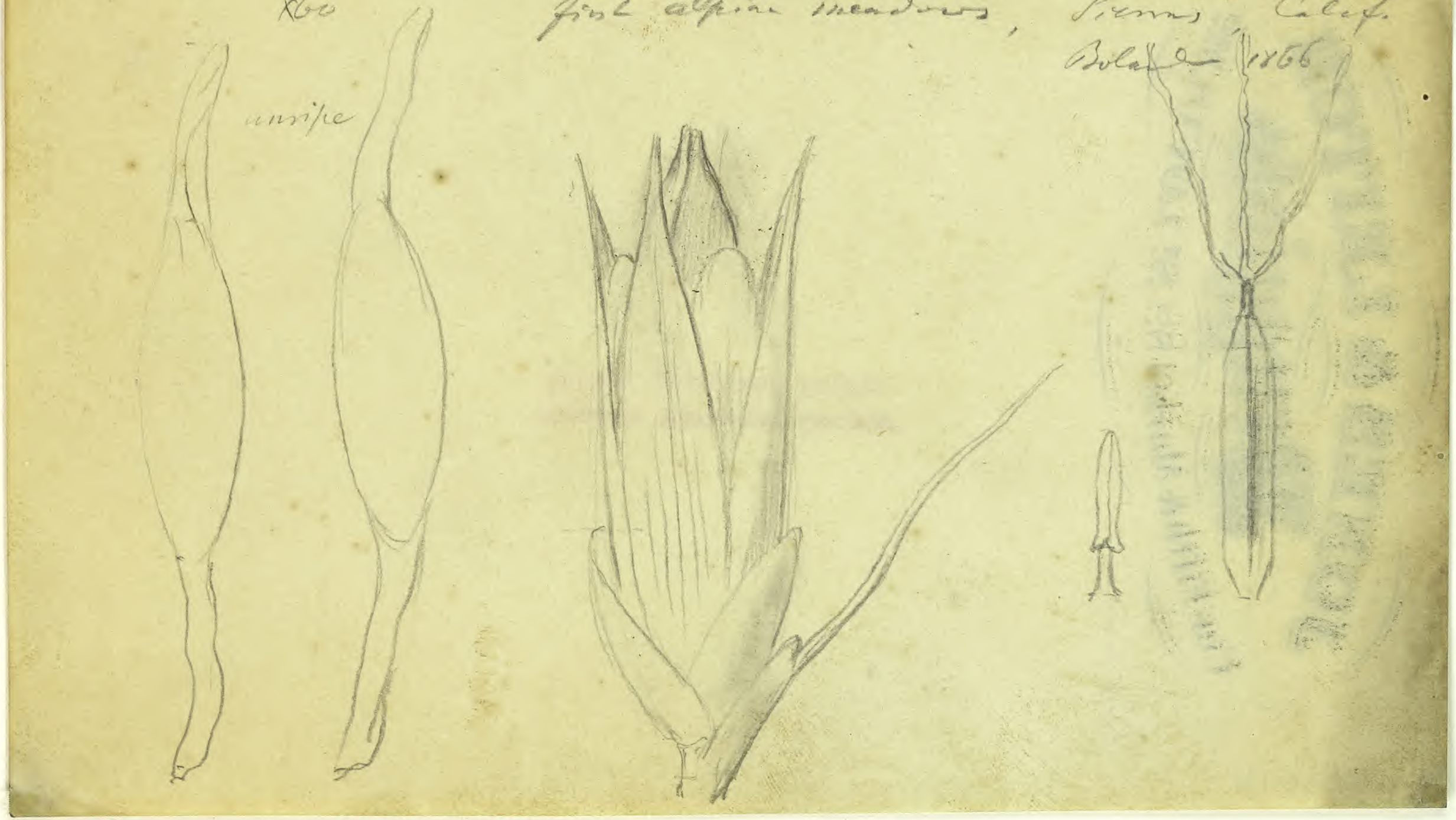
var sepal. ciliatum Branchiis obtusis

x60

first alpine meadows, Sierra Calif.

Bolander 1866

unripe



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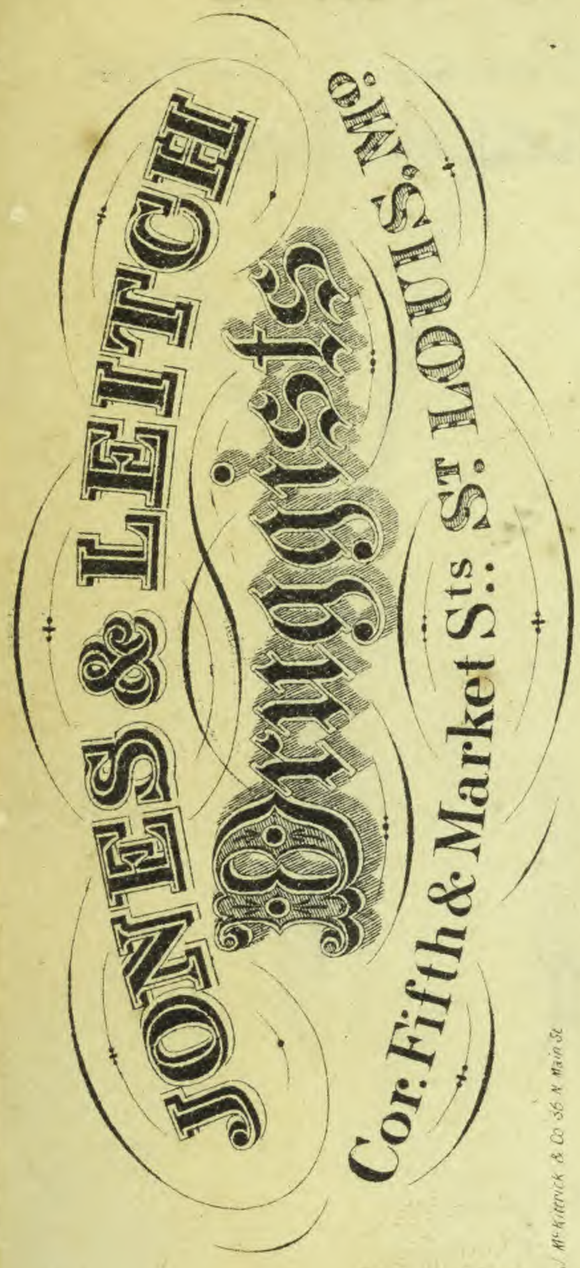
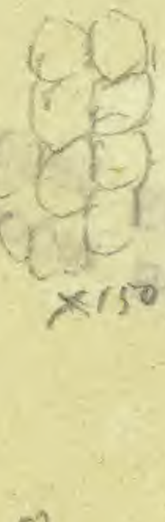



b016

Juncus Parryi
forma major
Sodaville Springs, Cal.

Oct 20 1881



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# Leitch & Corlies

## DRUGGISTS

SouthWest Corner Fifth and Market Streets

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interrupted descent and ascent took place from January to December, we find in 1862 some interruptions in the steps of that ladder. The electricity in February, 1862, is about four degrees higher than that of January, April somewhat higher than March, and July is the lowest instead of September in 1861. These trifling irregularities may be accounted for by differences in temperature and relative humidity, and by a greater number of thunderstorms in 1862. January of 1862, for instance, was so unusually rainy, that its relative humidity too was unusually high, diminishing thus electricity. But the general features of distribution of electricity throughout the year are apparent in both years, and we may in that respect divide the twelve months of each year into two or three groups. Computing the months which give the highest electricity and those which give the lowest in each year, we find that in both years the months of January, February, March, April, November and December exhibit the highest, and the months of May, June, July, August, September and October the lowest electricity. The first group gives

| | | | | |
|---|---|---|---|---|
| The aggregate monthly mean of | 71.5 | degrees of | electricity | in 1861 |
| and | 74.6 | " | " | " 1862 |
| While the second group gives | 29.0 | " | " | " 1861 |
| and | 25.7 | " | " | " 1862 |

The second group prevailed therefore in 1861, and the 1st

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VI. The appearance of negative electricity was connected in

| 1861. No. times. | 1862. No. times. | |
|---|---|---|
| 30 | 32 | with thunderstorms. |
| 23 | 28 | with rains without thunder and lightning. |
| 20 | 4 | with dry storms (without rain and without thunder and lightning). |
| 4 | 3 | with snow. |
| 1 | 0 | with fog. |
| 78 | 67 | |

VII. *Relation of Rain and Snow to Electricity.*

Rain without thunderstorm was accompanied

| | By Positive Electricity. | | By Negative Electricity. | | By no Electricity. | |
|---|---|---|---|---|---|---|
| | In 1861. | In 1862. | In 1861. | In 1862. | In 1861. | In 1862. |
| | | | | | | 2 |

0 cm 1 2 3 4 5 6 7 8 9 10
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Sumas

Aug 19 1865

Closed Hall 562

×60

×10

ripe seed

obs obl to
Crosbys distinct
but irregular
tails of shorter,
mostly only as long as width of seed (March 1866)

Capsule retusa

Sepala inaequalia acuta vix acuminata
vix excedens T. angusta

Faces stigmatum reditis
Corollata

anthers filaments
brevior

ovarium obtuse
styles brevissimus

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ALEX. LEITCH,
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Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

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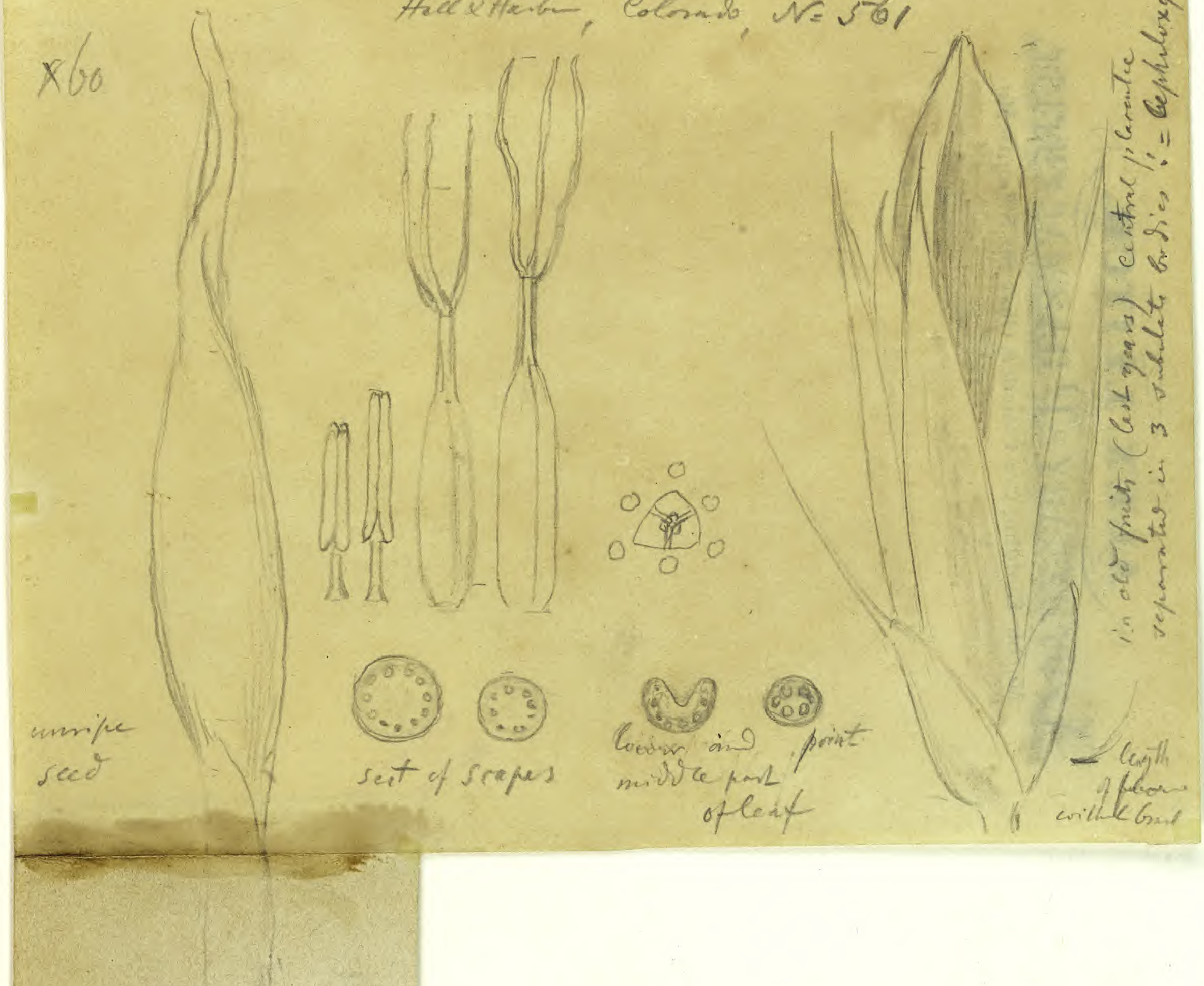
Jones
Hall & Harbour, Colorado, N= 561
Sept 1st 1865

x60



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Sonora

Sept 2d 1865

Hall No 562, Lake Ranch, scarce

X10 Sections of leaf

sheathing base above base toward tip



each of shape

Leaves & scape hollow

Parasitic? too incomplete

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Irvine

Jan 4 1866

California, mixed with *J. Drummondii*

Dr Hillebrant

N. 3. Bulbs mixt

x 60

only 4–6 inches high

1–3 flowered panicle

Vagin amplectate, leaf-bearing

stramineous, tubulate acuminate nerveless

Sepals external expanded

acute equalling petals

superior 5–7 nerved

interior broader 3 nerved

acute membranous

seen only once so large

seen only once so long belongs perhaps to Drummondii

usual size

x 150




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I. Drummondii ?
minor, basi saepe foliosa

Juncus Hallii ? capsula brevior

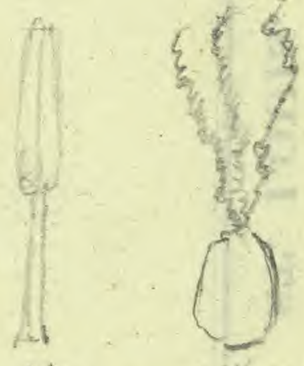
Feb 4 1870

Rocky Mountains
Dr F. V. Hayden 1864
Dr Parry mis.

X10

very young seed
x60

stam & pistil
of another flower



very young pistil

Stamen of the fruiting specimen

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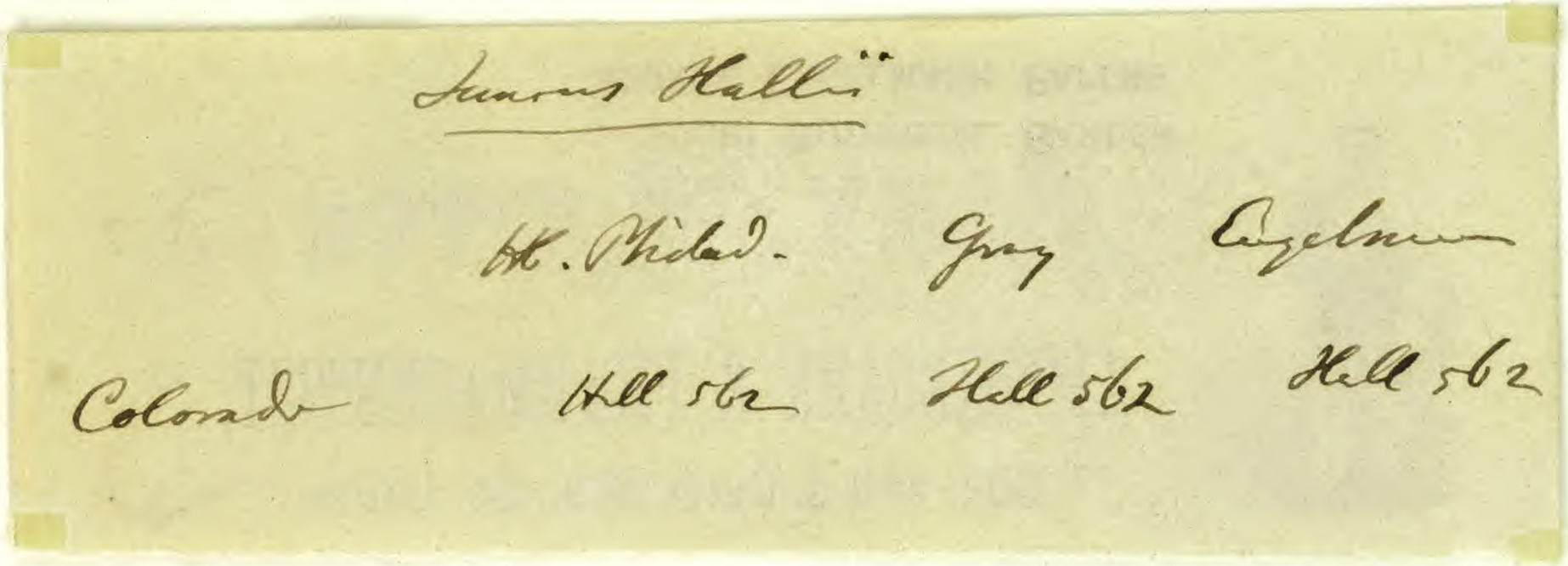


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